

四、中文創作摘要(創作之名稱:

拉鍊防脫上枳檔構造)

本創作係一種拉鍊防脫上枳檔構造，其由一防卡檔、一端止檔及一內止檔所組成。其中，端止檔係嵌設於一組拉鍊所屬一側拉鍊布帶之內緣上端，該端止檔之上半部與防卡檔之上半部呈對稱狀，而下半部則具有一窄長且底部外側具凸點之止脫條，該止脫條具有撓性，並可配合其下方內止檔而產生一小間隙，藉該小間距以使拉鍊頭之側板能斜向進入上止檔內，並使其無法由間隙中脫出。又，防卡檔係嵌設於一組拉鍊所屬另一側拉鍊布帶之一內緣上端；該防卡檔上端設一外突檔部，該外突檔部可抵住拉鍊頭之側板。又防止檔之內側直邊能緊靠拉鍊頭之導引塊，而不致產生扭轉卡死，並讓防卡檔上緣之圓弧部與拉鍊頭之前緣切齊，使達美觀效果。

英文創作摘要(創作之名稱:

TW359,982 entitled "buckling proof upper stopper structure of zipper" published on 1 June 1999. The inventor of the present invention Tsaur, Chang-Wen is the assignee of TW 359,982 recorded in TIPO. The abstract is translated from Chinese into English as following:

An upper stopper of zipper consists of a buckling proof stopper, an end stop, and an inner stopper. End stop is embedded on a top inner end of one pull strip, opposed to a buckling proof stopper; a flexible fixing strip with a tip is extended from the bottom of the end stop. A gap is generated between the fixing strip and the inner stop. A lateral plate of the pull can be guided into the upper stopper obliquely. The buckling proof stopper embedded on the inner top end of the other pull strip has a protruded stop block installed thereon resists the lateral plate of the pull. A straight inner side of the buckling proof stopper adjacent to a lead block of the pull prevents the pull from buckling on the teeth strip, a cambered top of the buckling proof stopper is flush with the pull.

(請先閱讀背面之注意事項再填寫本頁各欄)

裝

訂

線

(11)公告編號: 359982

(44)中華民國88年(1999)06月01日

新 型

全 4 頁

(51)Int. Cl.⁸: A44B19/36

(54)名 稱: 拉鍊防脫上枳檔構造

(21)申 請 案 號: 87205926

(22)申請日期: 中華民國87年(1998)04月18日

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1

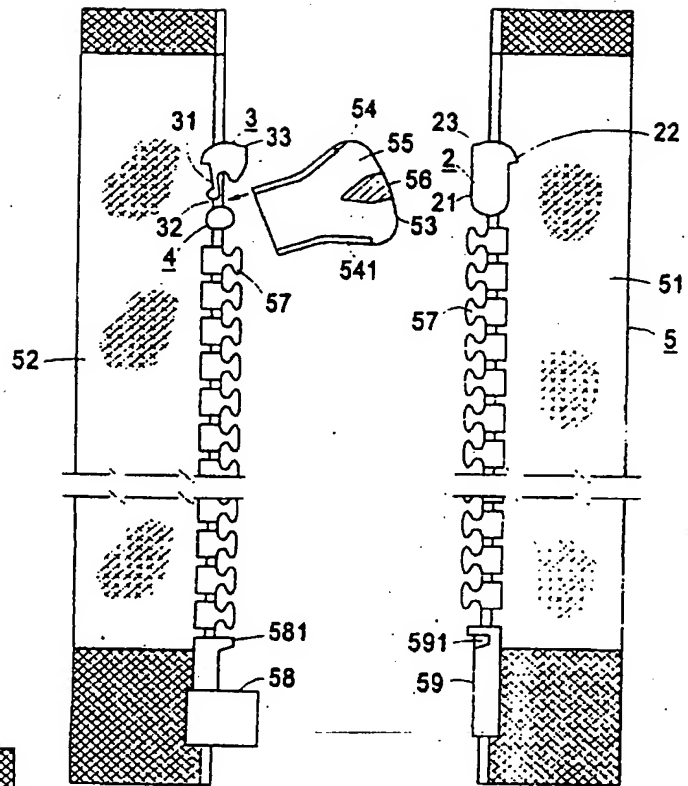
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[57]申請專利範圍:

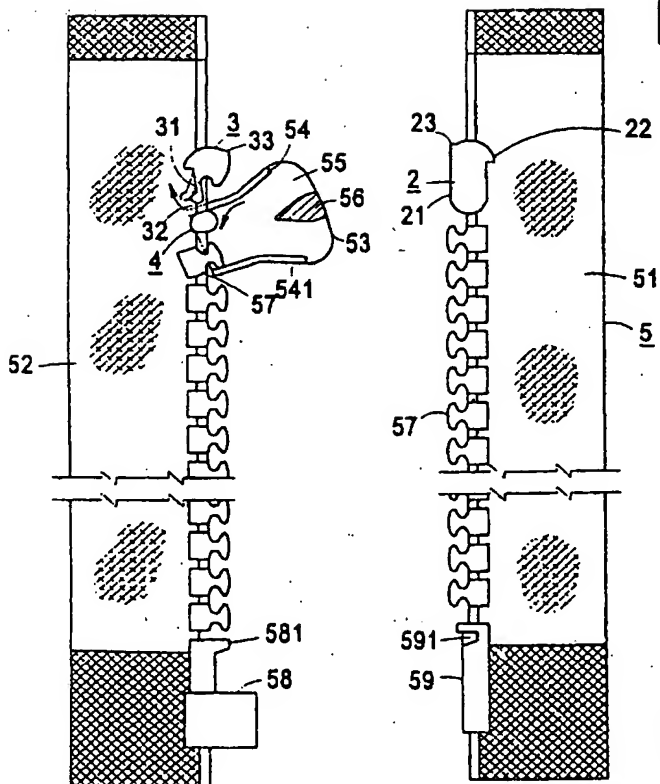
1. 一種拉鍊防脫上枳檔構造, 其係由一防卡檔、一端止擋及一內止檔所組成, 其中, 防止檔設在一拉鍊布帶之鍊齒上端, 而端止檔、內止檔是設在另一拉鍊布帶之鍊齒之端, 其特徵在於: 端止檔的下半部具有一窄長且底部外側具凸點之止脫條, 該止脫條具有適當撓性, 其可配合下方之內止檔而相距一小間隙, 該小間距可供拉鍊頭之側板以斜角通過, 並在旋轉一角度及倒正後, 而使拉鍊頭不再脫離鍊齒。
2. 依據申請專利範圍第1項所述之一種拉鍊防脫上枳檔構造, 其中, 防卡檔係在下方設有圓弧之柱塊, 內側邊為直邊, 而上端外側設一外突檔部, 該外突檔部可抵住拉鍊頭之側板, 且外突檔部的圓弧造型與拉鍊頭上部前緣一側切齊; 又直邊上端設有一略高之弧凸點, 致拉鍊頭嵌引槽進入防卡檔下部柱塊時, 使柱塊之內側直邊能緊靠拉鍊頭之導引塊, 而不致產生扭轉卡死。
3. 依據申請專利範圍第1項所述之一種拉鍊防脫上枳檔構造, 其中, 端止檔之上半部外側為一圓弧形, 該圓弧形與拉鍊頭上部前緣一側切齊, 又端止檔上部內側為大弧曲形, 以俾與拉鍊頭之導引塊相切, 又端止檔頂端為一弧凸點者。
4. 依據申請專利範圍第1項所述之一種拉鍊防脫上枳檔構造, 其中, 內止檔是一呈內側大又外側小之弧圓形塊。
5. 依據申請專利範圍第1項所述之一種拉鍊防脫上枳檔構造, 其中, 端止檔之止脫條具有一偏斜角度, 以俾防止拉鍊頭脫離。
15. 圖式簡單說明:
 - 第一圖係本創作之立體圖。
 - 第二圖係本創作之俯視圖。
 - 第三圖係本創作安裝示意圖(一)。
 - 第四圖係本創作安裝示意圖(二)。
 - 第五圖係本創作安裝示意圖(三)。
- 20.

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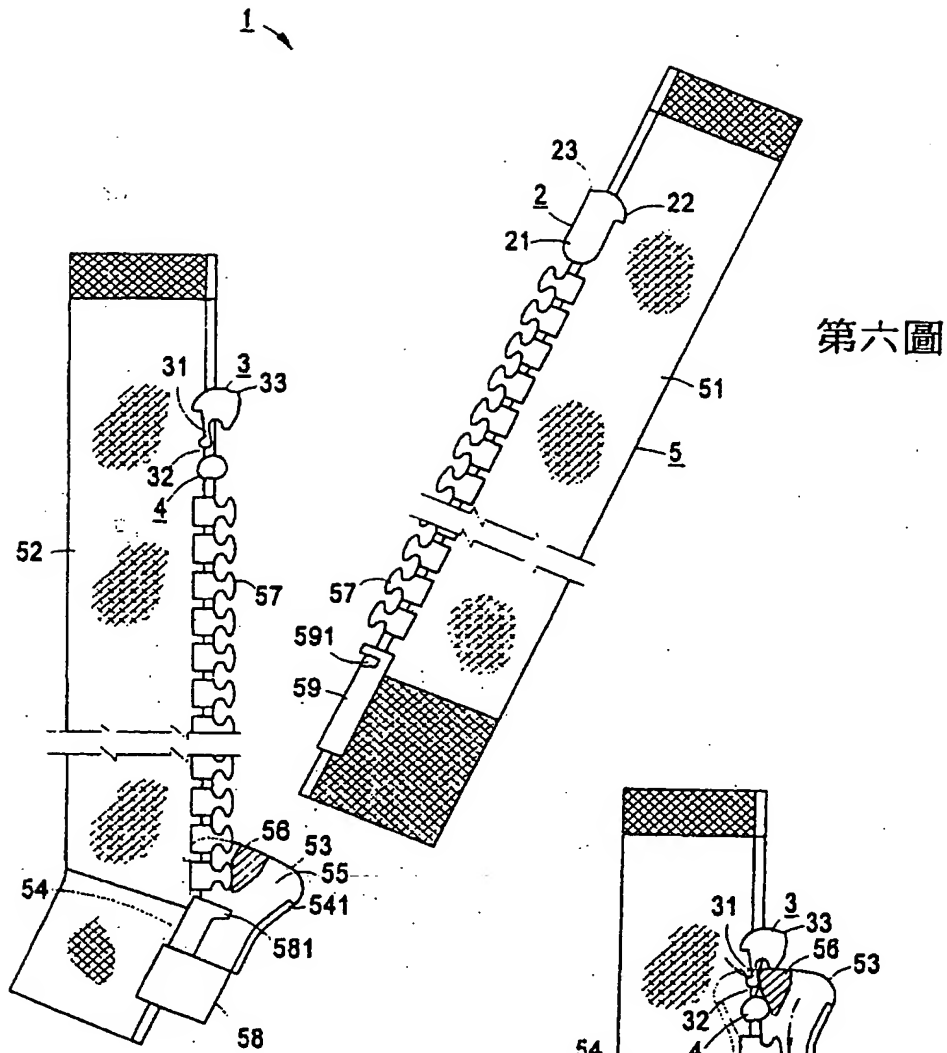


第三圖



第四圖

(4)



第六圖

第五圖

中華民國專利公報 [19] [12]

[11]公告編號：536957

[44]中華民國 92年 (2003) 06月 11日
新型

全 8 頁

[51] Int.Cl⁰⁷： A44B19/36

[54]名 稱：尼龍拉鏈之上止改良

[21]申請案號： 091216630

[22]申請日期：中華民國 91年 (2002) 10月 18日

[72]創作人：

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[74]代理人：

1

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[57]申請專利範圍：

1.一種尼龍拉鏈之上止改良，其中尼龍拉鏈兩側之擋邊鏈帶上方各設有上止，其中之一上止係一體射出成形而包覆於擋邊鏈帶與鏈齒，而該上止上方內側具內擋部，外側則具有卡擋部；而其中之另一上止則包括有：

上定位塊，係一體射出成形於擋邊鏈帶，且由其上、下以及內側包覆該擋邊鏈帶與鏈齒，且該上定位塊之寬度係較寬於鏈齒之寬度，而該上定位塊之上方內側具有一內擋部，且下方外側則具有一卡擋部，另外該上定位塊與下定位塊之間則形成一適當大小的槽道；

下定位塊，係以超音波熔合方式固設於擋邊鏈帶，其上方則與上定位塊之間形成槽道；

5. 藉由上述構件之組成，拉鏈頭可藉由前述另一上止的上定位塊與下定位塊之間所形成槽道嵌入擋邊鏈帶，並恰令該另一上止的上定位塊之內擋部可抵靠拉鏈頭之隔板，且該上定位塊的卡擋部可卡擋拉鏈頭之側端緣壁；

10. 其特徵在於：

15. 該另一上止的上定位塊之下方乃一體成形有一彈性彎鉤，該彈性彎鉤之下方鉤尾則係勾扣於下定位塊上方預設之凹溝部，是以當拉鏈頭藉

由上、下定位塊之間的槽道而嵌入擋邊鏈帶時，令拉鏈頭可擠開彈性彎鉤而斜穿通過該彈性彎鉤，而當拉鏈頭拉至上定位塊時，拉鏈頭之外側端緣又將彈性彎鉤之下端鉤尾往內擠，令鉤尾恢復與下定位塊之凹溝部扣合狀態，而進一步可達到確保拉鏈頭不會脫離之效果者。

2. 如申請專利範圍第1項所述之尼龍拉鏈之上止改良，其中該另一上止的上定位塊下方乃具有兩凹溝，該兩凹溝恰位於彈性彎鉤之上端的兩側，令該彈性彎鉤具有較佳之彈性者。

圖式簡單說明：

圖一係習用尼龍拉鏈上止之斷面示意圖。

圖二係本創作設於尼龍拉鏈之平面圖。(鏈齒未嚙合)

圖三係本創作設於尼龍拉鏈之斷面示意圖。

圖四係本創作設於尼龍拉鏈之另一斷面示意圖。

圖五係本創作設於尼龍拉鏈之平面圖。(鏈齒已嚙合)

5. 圖六係本創作拉鏈頭未嵌入拉鏈之擋邊鏈帶的平面示意圖。

圖七係本創作之部份平面放大示意圖。

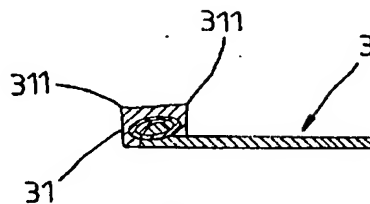
10. 圖八係本創作之部份平面放大示意圖。

圖九係本創作拉鏈頭嵌入拉鏈之擋邊鏈帶的平面動作示意圖。

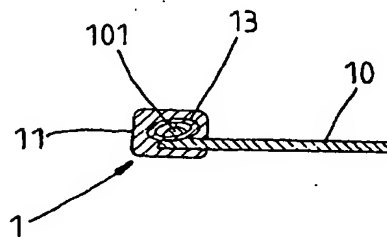
圖十係本創作拉鏈頭已嵌入拉鏈之擋邊鏈帶的平面示意圖。

15. 圖十一係本創作設於尼龍拉鏈且裝入拉鏈頭並將拉鏈頭拉至最上方之平面示意圖。

20. 圖十二係本創作設於尼龍拉鏈且裝入拉鏈頭並將拉鏈頭拉至最上方之部份斷面放大示意圖。

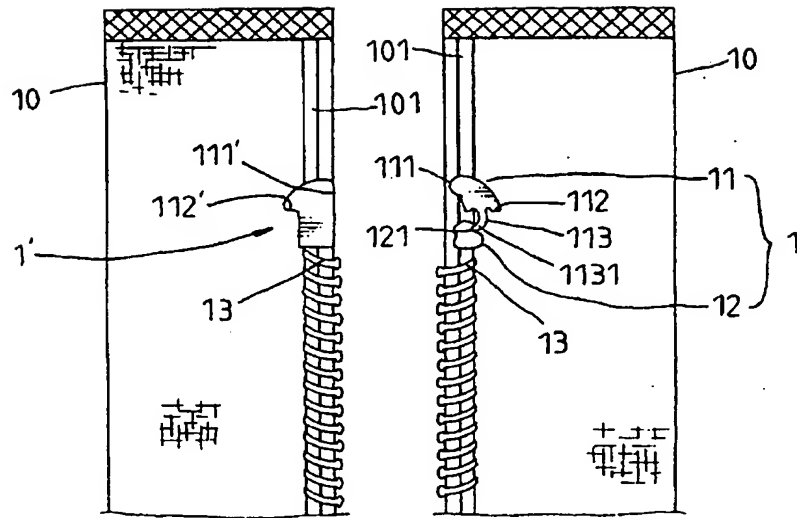


圖一

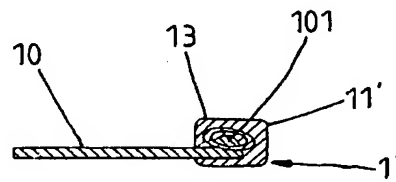


圖三

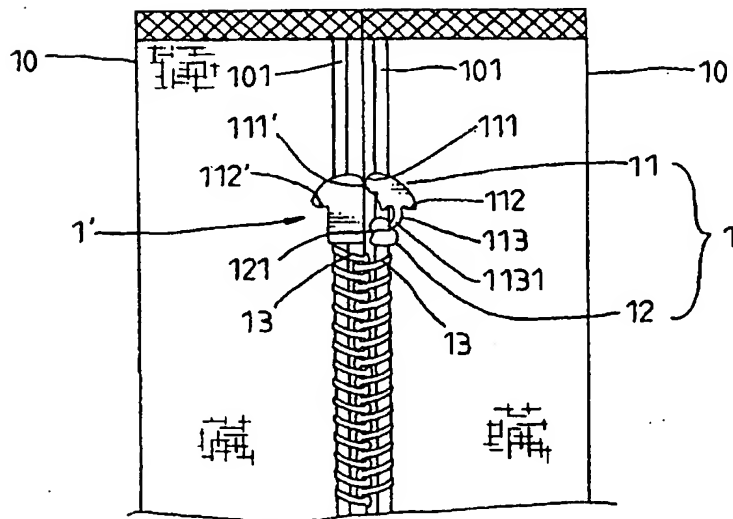
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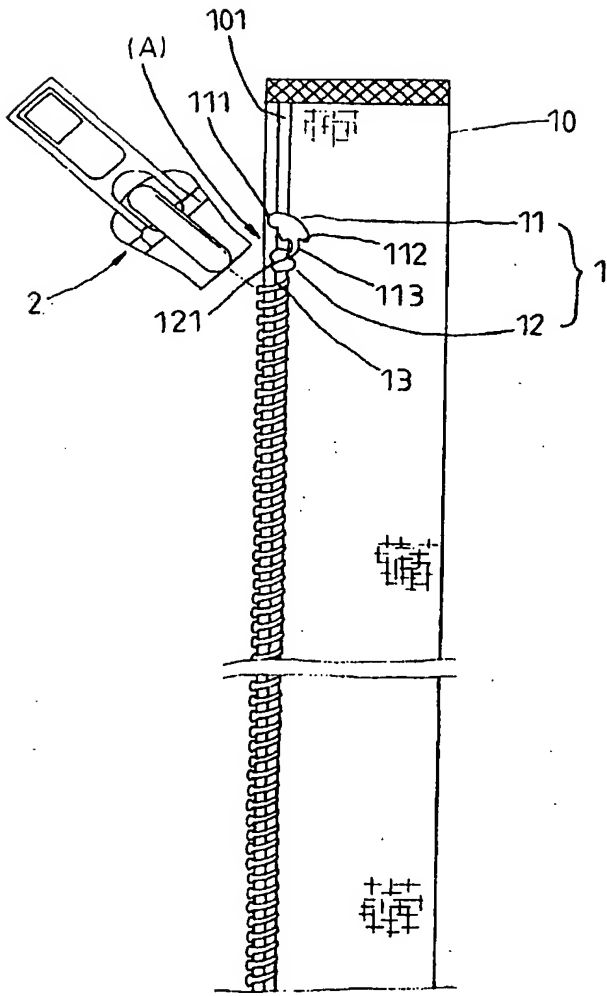
圖二



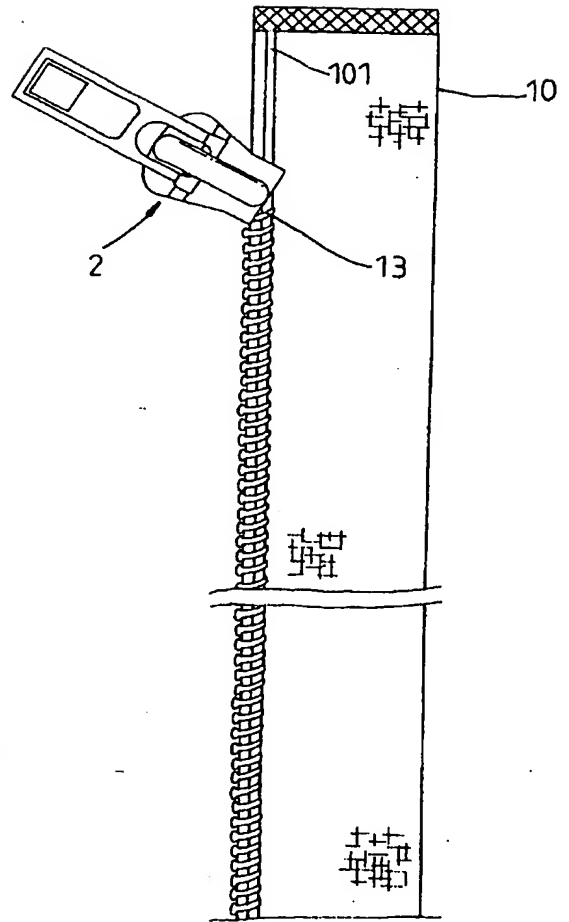
圖四



圖五

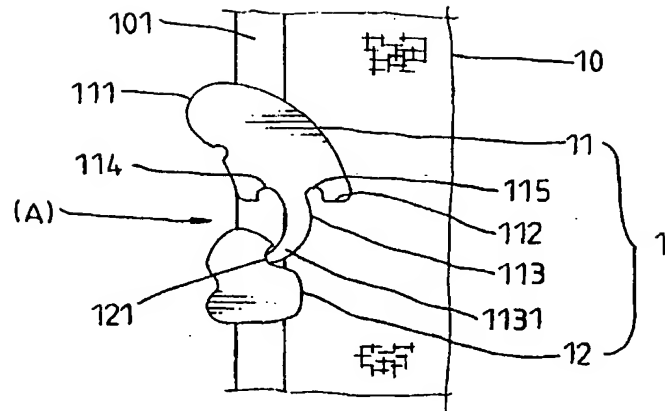


圖六

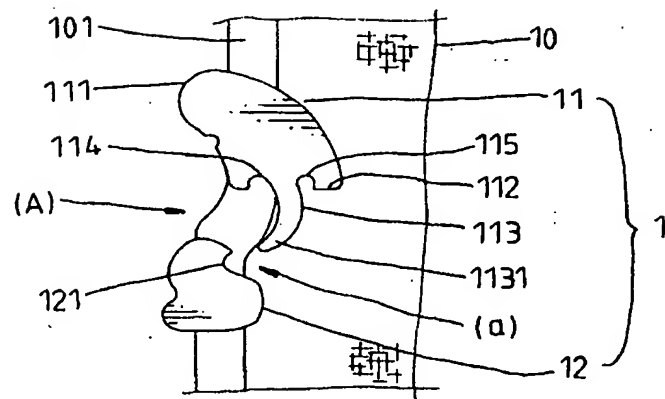


圖九

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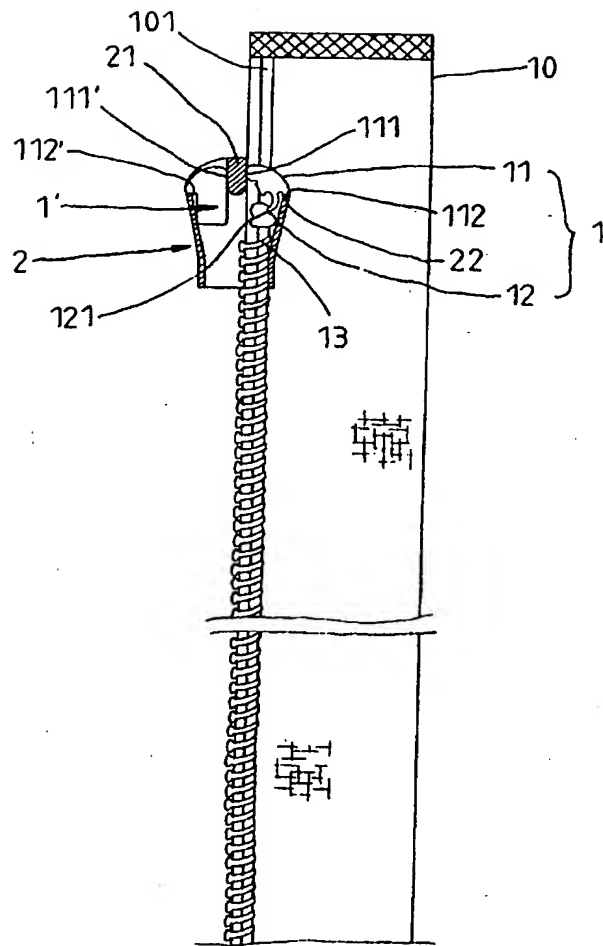


圖七



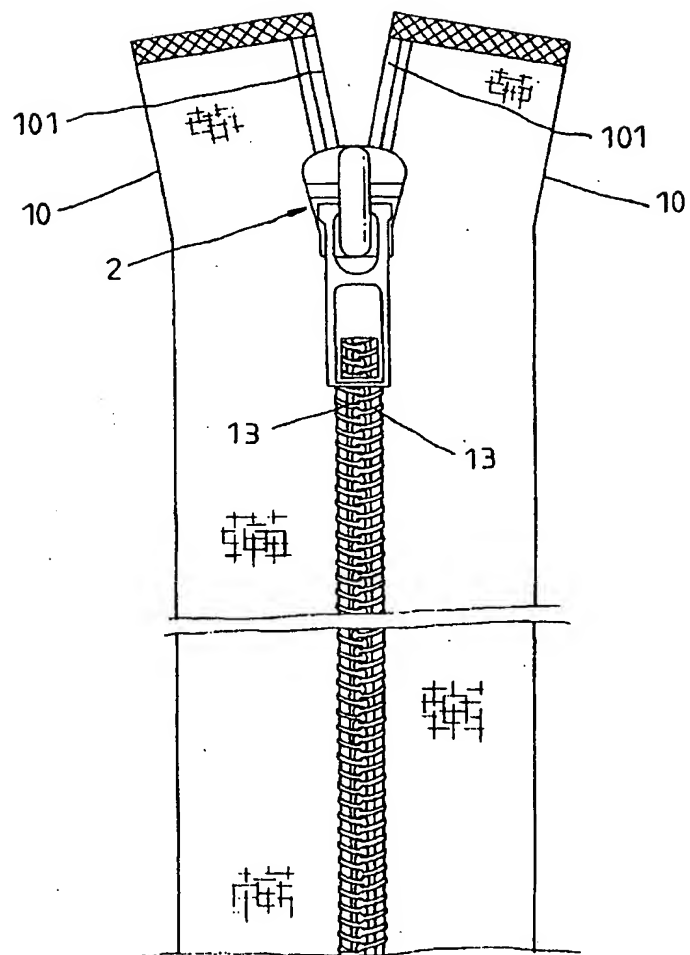
圖八

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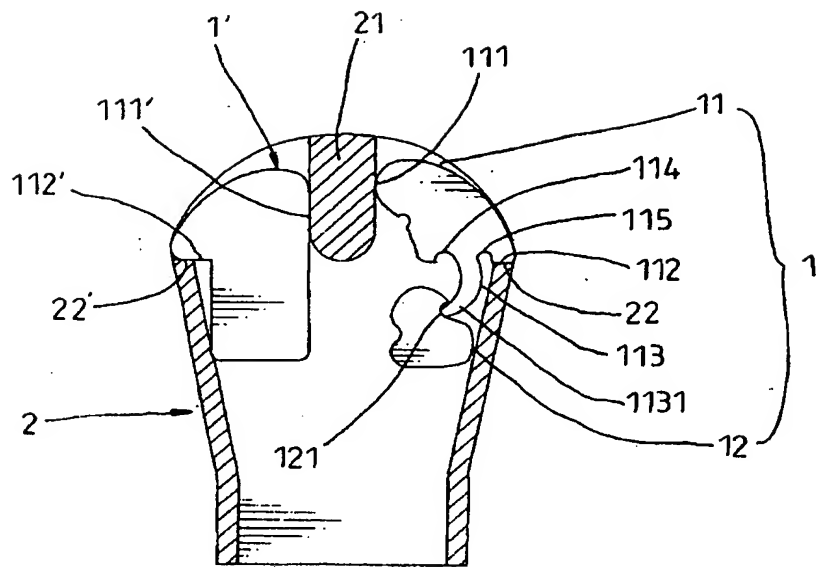


圖十

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圖十一



圖十二

TW 536,957 counterpart of cited Wang, US 6,715,187, is different from TW 359,982 by its lengthened tip 1131 of springy hook 113, which can be seen on the drawings of TW 359,982 as fixing strip 31 and tip 311.

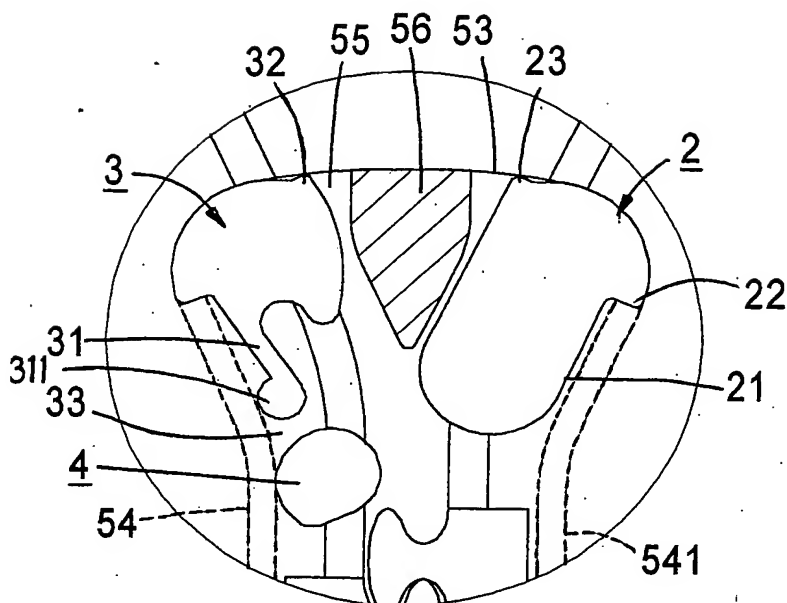


Fig. 1

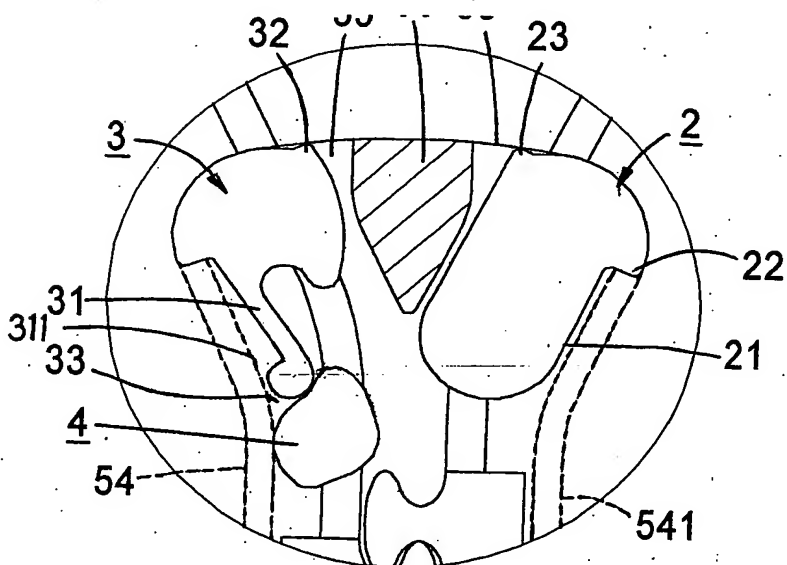


Fig. 2

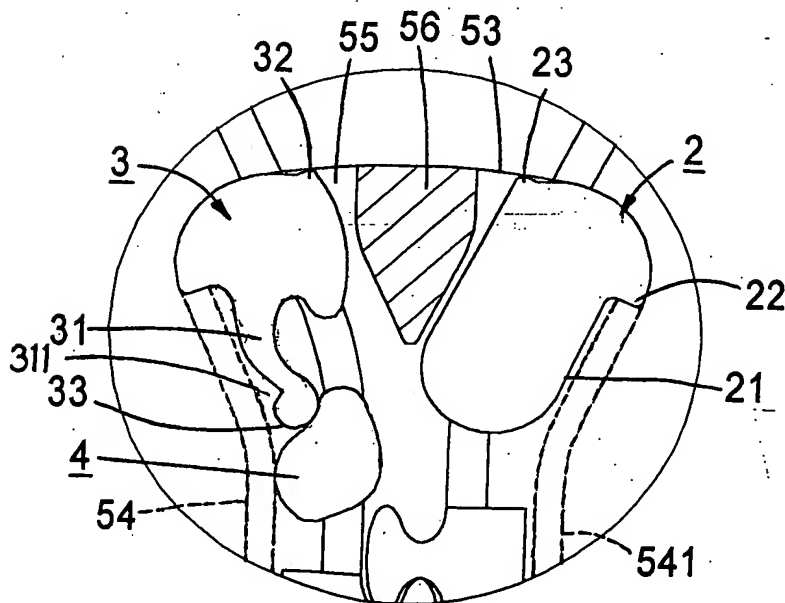


Fig. 3

TW 536,957 counterpart of
cited Wang, US 6,715,187,
its top block is
substantially inclined at a
degree.

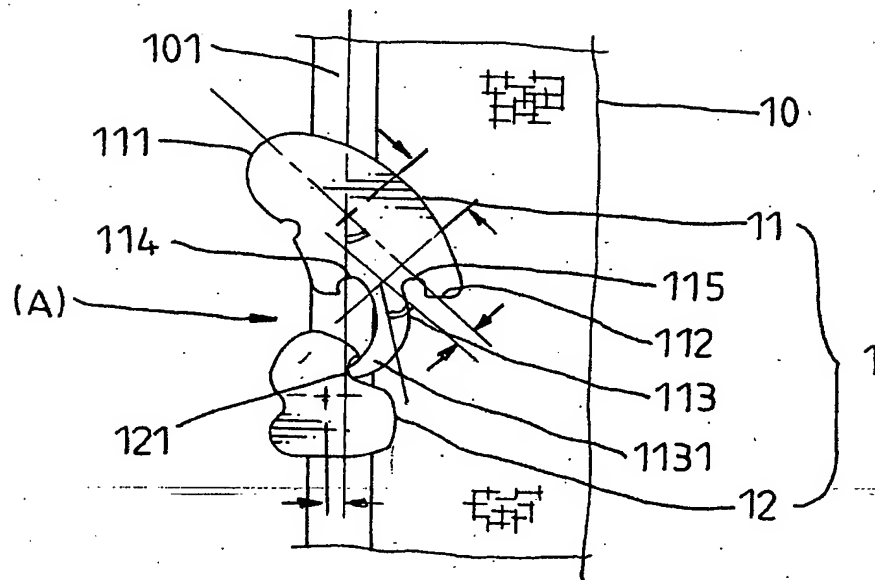


Fig. 7

3. The end stop 2 is above the inner stopper 3. The end stop 2 and the inner stopper 3 are connected by a connecting plate 31. An outer side of the top of the end stop 2 has a round protruding stop block 21. A lower end of the end stop 2 near the outer side is extended with a narrow long elastic fixing strip 22 having a round tip 23. A lower side of the end stop 2 is formed with a concave cambered guide surface 24 from the inner side thereof to the fixing strip 22. A cambered surface of the cambered guide surface 24 extends ~~upwards~~ downwards and outwards to be adjacent to the fixing strip ~~11~~22. The connecting plate 31 is at an inner side of the end stop 2 and ~~he~~ the inner stopper 3. The connecting plate 31, end stop 2 and inner stopper 3 are integrally formed. Only the end stop 2 and the inner stopper 3 are connected to the pull strip 101, while the connecting plate 31 is not connected to the connecting plate 31, but is tightly adjacent to the lateral side of the teeth strip 102 (referring to Fig. 5). A cambered concave wall 33 extends from the upper end of the end stop 2 to an inner side of the connecting plate 31 so that a top of the end stop 2 is formed with a protruded upper cambered corner 34. Moreover, a top edge of the inner stopper 3 is an inclined guide surface 37. A gap is retained between the inclined guide surface 37 and the fixing strip 22. A right lower end of the inner stopper 3 is a lower cambered protruded corner 38. A lower end of the inner stopper 3 near the inner side is formed with a protruded triangular block 35. An inner side of the triangular block 35 is an inclined guide surface 36.

With reference to Figs. 4 and 5, Fig. 4 is a schematic view showing that the pull 5 is guided into a zipper. Fig. 5 is a partial enlarged view of Fig. 4. Internal of the pull 5 contains a middle post 51 for separating the left and right teeth and a lateral plate 52 for confining the movement of the teeth. Thereby, a Y shape guide groove 53 is formed in the pull 5. The connecting plate 31 is thinner for guiding the lateral plate 52 of the pull 5. Since a larger space is formed between the cambered guide surface 24 at a lower edge

stoppers 10 will be guided into the pull 5. At this moment, the stop blocks 11, ~~12~~ 21 of the stop unit 1 and end stop 2 will resist against tops of two lateral plate 52 so that the upper stoppers 10 will not be embedded into the pull 5.

5 When the pull 5 is pulled upwards improperly, the right upper stopper causes that the gap between the end stop 2 and inner stopper 3 will not over expand by the effect of the connecting plate 31. Moreover, the pull strips 101 and teeth strip 102 between the end stop 2 and inner stopper 3 will not be over-pulled so as to prevent from damage, deformation or looseness.
10 Thereby, to the right upper stopper, the connecting plate 31 has the effect of enhancement.

Next, after the pull 5 is pulled upwards (referring to Fig. 9), the lowest points of the cambered concave walls 12, 33 of the two upper stoppers 10 do not resist against the middle post 51 of the pull 5. Only the upper cambered
15 corners 13, 34 and the lower cambered corner 14 resist against the middle post 51. Besides, the contacts points of the left upper stopper, middle post 51 and the lateral plate 52 are the protruded stop block 11, upper cambered corner 13 and lower cambered corner 14 for enhancing the force applied thereon (in the prior art, only two contact points are designed). The
20 cambered concave wall 12 and outer lateral wall 17 of the stop unit 1 is not in contact with the middle post 51 and the lateral plate 52. When the stop unit 1 is over-pressed by the pull 5, it can be deformed in a finite gap. The deformation is beneficial to the pull 5 to separate from the stop unit 1. When the pull 5 separates from the stop unit 1, it can restore to the original
25 state. Similarly, the contact points of the right upper stopper, middle post 51, and lateral plate 52 are stop block 21, upper cambered corner 34 and lower corner 38 for enhancing the reactive force. The cambered concave wall 33 of the right upper stopper is not in contact with the lateral wall of the middle post 51. When the right upper stopper is over-pressed by the pull 5,

stopper to restore. Thereby, the two upper stoppers 10 will not be clamped when the pull 5 is over-pulled, and moreover, the opening of the Y shape guide groove 53 is smaller than the prior art. Thus the surface of the pull strip 101 is more flat and has less wrinkles.

5 Besides, Fig. 10 shows that the lower ends of the stop unit 1 and inner stopper 3 have blocks 15, 35 which match to the concave openings at the ~~later~~ lateral edges of the teeth head of the teeth 103. Other than the effect of shielding the concave portions, it can reduce the gap to the teeth 103. Since the triangular blocks 15, 35 are protruded from a lower edge of the stop unit 1
10 and inner stopper 3, it is not the same as the prior art upper stoppers having a horizontal lower edge. Thereby, it can prevent the lateral plate 52 of the pull 5 from being guided out from the gap so that the triangular blocks 15, 35 has the same function as the stop blocks.

Moreover, in Fig. ~~15~~ 11, the inner sides of the triangular blocks 15, 35 are
15 the inclined guide surfaces 16, 36 so that when the stop unit 1 and inner stopper 3 are guided into the pull 5, they can slide into the Y shape guide groove 53 from the lateral wall of the middle post 51, but not stop the lateral wall of the middle post 51 in force so that the upper stoppers are well matched to the pull 5.

20 Advantages of the present invention will be described here. In the present invention, the upper stoppers will not be buckled to the pull due to a larger force. The teeth guided into the pull from the gap between the end stop and inner stopper can not be guided out from the gap. The pull is difficult to be guided out from between the inner stopper and teeth. The pull
25 strips and teeth strips between the end stop and the inner stopper are not easy to deform or be loose. Moreover, the movement of the two upper stoppers to the pull can be smoothly and easily.

Although the present invention has been described with reference to the preferred embodiments, it will be understood that the invention is not limited

3. The end stop 2 is above the inner stopper 3. The end stop 2 and the inner stopper 3 are connected by a connecting plate 31. An outer side of the top of the end stop 2 has a round protruding stop block 21. A lower end of the end stop 2 near the outer side is extended with a narrow long elastic fixing strip 22 having a round tip 23. A lower side of the end stop 2 is formed with a concave cambered guide surface 24 from the inner side thereof to the fixing strip 22. A cambered surface of the cambered guide surface 24 extends downwards and outwards to be adjacent to the fixing strip 22. The connecting plate 31 is at an inner side of the end stop 2 and the inner stopper 3. The connecting plate 31, end stop 2 and inner stopper 3 are integrally formed. Only the end stop 2 and the inner stopper 3 are connected to the pull strip 101, while the connecting plate 31 is not connected to the connecting plate 31, but is tightly adjacent to the lateral side of the teeth strip 102 (referring to Fig. 5). A cambered concave wall 33 extends from the upper end of the end stop 2 to an inner side of the connecting plate 31 so that a top of the end stop 2 is formed with a protruded upper cambered corner 34. Moreover, a top edge of the inner stopper 3 is an inclined guide surface 37. A gap is retained between the inclined guide surface 37 and the fixing strip 22. A right lower end of the inner stopper 3 is a lower cambered protruded corner 38. A lower end of the inner stopper 3 near the inner side is formed with a protruded triangular block 35. An inner side of the triangular block 35 is an inclined guide surface 36.

With reference to Figs. 4 and 5, Fig. 4 is a schematic view showing that the pull 5 is guided into a zipper. Fig. 5 is a partial enlarged view of Fig. 4. Internal of the pull 5 contains a middle post 51 for separating the left and right teeth and a lateral plate 52 for confining the movement of the teeth. Thereby, a Y shape guide groove 53 is formed in the pull 5. The connecting plate 31 is thinner for guiding the lateral plate 52 of the pull 5. Since a larger space is formed between the cambered guide surface 24 at a lower edge

stoppers 10 will be guided into the pull 5. At this moment, the stop blocks 11, 21 of the stop unit 1 and end stop 2 will resist against tops of two lateral plate 52 so that the upper stoppers 10 will not be embedded into the pull 5.

When the pull 5 is pulled upwards improperly, the right upper stopper causes that the gap between the end stop 2 and inner stopper 3 will not over expand by the effect of the connecting plate 31. Moreover, the pull strips 101 and teeth strip 102 between the end stop 2 and inner stopper 3 will not be over-pulled so as to prevent from damage, deformation or looseness. Thereby, to the right upper stopper, the connecting plate 31 has the effect of enhancement.

Next, after the pull 5 is pulled upwards (referring to Fig. 9), the lowest points of the cambered concave walls 12, 33 of the two upper stoppers 10 do not resist against the middle post 51 of the pull 5. Only the upper cambered corners 13, 34 and the lower cambered corner 14 resist against the middle post 51. Besides, the contacts points of the left upper stopper, middle post 51 and the lateral plate 52 are the protruded stop block 11, upper cambered corner 13 and lower cambered corner 14 for enhancing the force applied thereon (in the prior art, only two contact points are designed). The cambered concave wall 12 and outer lateral wall 17 of the stop unit 1 is not in contact with the middle post 51 and the lateral plate 52. When the stop unit 1 is over-pressed by the pull 5, it can be deformed in a finite gap. The deformation is beneficial to the pull 5 to separate from the stop unit 1. When the pull 5 separates from the stop unit 1, it can restore to the original state. Similarly, the contact points of the right upper stopper, middle post 51, and lateral plate 52 are stop block 21, upper cambered corner 34 and lower corner 38 for enhancing the reactive force. The cambered concave wall 33 of the right upper stopper is not in contact with the lateral wall of the middle post 51. When the right upper stopper is over-pressed by the pull 5, it can deform in a finite gap so that the pull 5 can retract from the right upper

stopper to restore. Thereby, the two upper stoppers 10 will not be clamped when the pull 5 is over-pulled, and moreover, the opening of the Y shape guide groove 53 is smaller than the prior art. Thus the surface of the pull strip 101 is more flat and has less wrinkles.

5 Besides, Fig. 10 shows that the lower ends of the stop unit 1 and inner stopper 3 have blocks 15, 35 which match to the concave openings at the lateral edges of the teeth head of the teeth 103. Other than the effect of shielding the concave portions, it can reduce the gap to the teeth 103. Since the triangular blocks 15, 35 are protruded from a lower edge of the stop unit 1
10 and inner stopper 3, it is not the same as the prior art upper stoppers having a horizontal lower edge. Thereby, it can prevent the lateral plate 52 of the pull 5 from being guided out from the gap so that the triangular blocks 15, 35 has the same function as the stop blocks.

Moreover, in Fig. 11, the inner sides of the triangular blocks 15, 35 are
15 the inclined guide surfaces 16, 36 so that when the stop unit 1 and inner stopper 3 are guided into the pull 5, they can slide into the Y shape guide groove 53 from the lateral wall of the middle post 51, but not stop the lateral wall of the middle post 51 in force so that the upper stoppers are well matched to the pull 5.

20 Advantages of the present invention will be described here. In the present invention, the upper stoppers will not be buckled to the pull due to a larger force. The teeth guided into the pull from the gap between the end stop and inner stopper can not be guided out from the gap. The pull is difficult to be guided out from between the inner stopper and teeth. The pull
25 strips and teeth strips between the end stop and the inner stopper are not easy to deform or be loose. Moreover, the movement of the two upper stoppers to the pull can be smoothly and easily.

Although the present invention has been described with reference to the preferred embodiments, it will be understood that the invention is not limited

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